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Striving for a historically faithful interpretation: Jeanne Pommeau and Jonáš Kucharský on the digital restoration of *Ecstasy*

Having won the Venice Film Festival Award for Best Restored Film, the restored version of Gustav Machatý's *Ecstasy* (*Extase*, 1933) was released in Czech cinemas. It was digitally restored last year under the expert supervision of the Czech National Film Archive (Národní filmový archiv). We were discussing the process with the restorers Jeanne Pommeau and Jonáš Kucharský.

The digital restoration of *Ecstasy* was quite a delicate task in which you had to consider a number of different preserved materials. Let's start with those that are stored in the National Film Archive.

Jeanne Pommeau: The NFA's collection contains the Czech and German versions of the film. The Czech version is a distribution copy from 1958 – a year marking the 60th anniversary of Czech cinematography with many important films having their second *première*. However, it is unfortunately not the original version of the film. Firstly, the frame format is different (1:1.37 instead of 1:1.19), which is the main shortcoming, and secondly, this version was made of inferior material with several defects. As a result, all copies made of this material include these defects as well. Moreover, some shots were missing in the film. The projectionists and collectors were probably cutting out some scenes from the film and keeping only some for the screening.

So, the original 1930s material, including the negative, has not been preserved in the Czech Republic?

JP: No, unfortunately nothing has remained; not only in the NFA but in other archives either; neither the original negative, nor the original copy nor any other material. But we are only talking here about the Czech version; the film was made in multiple languages. Out of the Czech version, what has only been preserved have been the materials made of the damaged duplicate negative meant for the second distribution. It was probably made in the 1950s, but we can't date it precisely. But we know that it's partially nitrous.

Jonáš Kucharský: After identifying the distribution material from 1958, it was obvious that it was quite a distant generation from the original one. You can quite easily tell from the sound; we have a density sound track in which every copying step leaves a mark. And we can be quite certain that the materials we have – be they distribution copies or the duplicate negative – are several generations away from the original material from the 1930s. So, in addition to the copied defects, we also have a material which is very far from the original one. With *Ecstasy* being very popular and often screened in Czech, Slovak and international cinemas, the copies were inevitably wearing down. And with every new copy, there was a new distribution version made of the available material. So, in addition to the several language versions, there were more and more versions being made because of its popularity.

So, for the purposes of the restoration, you had to ask international archives if they had a copy which would be closer to the original 1930s version...

JP: Yes. In reconstructing the image, we had to look for the same shots used in different language versions. But that's not all. For example in Austria, *Ecstasy* was screened in an uncensored version, whereas in Germany a slightly different film was screened a few years later. Moreover, there was another German version made after World War II... So, to reconstruct the original plot, we chose the Czech 1958 distribution version as a basis. Thanks to the splices and other marks, we know that some parts of the film were missing; so, we added them for the international copies.

JK: It is also to be noted that speaking about film versions of the time – German, Austrian, French and other ones –, it doesn't mean that one film was made which was

then dubbed in another language. In early sound films, every scene was made separately in each of the languages. So, it's not about a slightly different sound – the talking scenes were shot again and it's basically a different film.

JP: At the beginning of the sound film period, the sound itself was very important. Important was for the viewer to view the entire film as a continuum, with the actors' lips synchronized with their speech. This was absolutely obvious in *Ecstasy*. In the Czech version, the leading actor speaks Czech and it's clear from the image. In the German version, he speaks German and so on.

Which materials helped you reconstruct the missing parts?

JP: It was mainly the Austrian version duplicate negative stored in the NFA, with the original frame format 1:1.19. The image composition of *Ecstasy* plays a crucial role, and with conversion to another format, it loses a lot. In the Cineteca di Bologna, we were comparing the scans of all international copies and our duplicate negative – their quality and generations. The rule was to use material which was closest to the original generation and least damaged. We were gradually creating a hierarchy of materials, prioritizing those which were better preserved, of better quality and more original. Another criterion was the completeness. If the image in a material was not complete, we considered another one. This was the logic behind our restoration process.

Can you even speak about one specific source material in such a complex case?

JP: Well, we didn't have any main material in restoring *Ecstasy*. Coincidentally, the most quality material was the German duplicate negative stored in the NFA, but the Danish nitrous copy and the contemporary Swiss and German copies were of excellent quality as well. So, we had to combine all these materials to come as close as possible to the original 1930s version.

What was the image restoration like?

JP: Well, of course we couldn't „clean up“ the image completely so it would look like from a new film. In this way, we would exchange a real image for a false one. It would be rather a creation of special effects than restoration. Many times, there were lines and scratches so visible that if we removed them, the image would go completely. So,

we had to leave some parts specific for the Czech version damaged, and we were just trying to smooth out the image where possible. We were restoring the Czech version, which is greatly damaged, and that's why we had to take the material as it was. We also preserved characteristic features resulting from the laboratory processing methods of the time – e.g. the drops left in the image after the development process. This was all part of the story of making *Ecstasy*.

Did you work with the image brightness or colour at all?

JP: Well, this was complicated as we didn't have any reference copy from the time, because even the international copies are not first-generation ones. And since we put different materials together, we mainly had to ensure that the resulting image was consistent. So, we were trying for consecutive shots to match. For example, in one scene there was a shot from the German version added to a Czech shot in the editing process. In the delicate German image, the contrast was optimal, which was not the case of the Czech one. So, we had to find a way to seamlessly connect the materials for them not to disturb the viewer too much. Film is a time art, among other things – the viewer doesn't perceive the shots as individual slides but as one flow of images. And that's what we have to take into account in restoration. It's always about a compromise.

How difficult was the sound restoration?

JK: We faced similar problems with sound. Rather surprisingly, we used elements stored in the NFA more often than expected – both from the German and Czech negative versions. We expected the Danish copy to be of great use. We had been told it was a Czech version; however, in the end we found out that the film switches between Czech and German, which is not really ideal for restoration. One of the greatest problems was the fact that all materials were of quite a distant generation from the original negative and copies. *Ecstasy* was made using the Tobis-Klang sound technology of the time, which is a density sound track that is very contrast-sensitive in copying. In many scenes there were moments when we couldn't be sure whether the sound that we could hear was part of the original Czech version or whether this was, for example, a copying defect included in the later generations as well. This was one of the reasons why we were, I think for the very first time in our case, looking for the

original film music score, which we wanted to use as one of the sources of information about what should be heard in the film. As it happens, the original music score hasn't been preserved. However, we managed to find out that in Deutsches Filminstitut & Filmmuseum in Frankfurt, there is an autograph of certain parts by the author of the film music, Giuseppe Becce. Based on this we at least established that Becce didn't include any percussion instruments in some film scenes we were not sure about, so what we were hearing was really some technological noises copied in. At the same time, however, we couldn't clean the sound up completely as we were trying to follow the processing methods of the time as closely as possible.

What was the post-production like?

JK: One of the reasons why we decided to restore *Ecstasy* in Bologna was the fact that the local Cineteca had significant experience with this type of material. And already at the beginning we agreed for most post-production actions – for instance, establishing the frequency band or pitching the sound in the spectre – to be carried out at the scanner, to make the best possible quality record of the material, matching the possible original sound of the film as closely as possible. The restoration process is fictitious to a certain extent though, as no reference material or cinemas of the time are available. Today's reproducing assemblies use different electroacoustic principles than those of the 1930s, which makes the entire process significantly more complex.

Another problem with this film, in addition to the lack of completeness, is synchronization. Considering that there is almost no contact sound in *Ecstasy*, it is very hard to tell which synchronization in the Czech version is the right, original and true one. Due to the splices and constant copying, each of the copies has slightly different synchronization of dialogues or effects. So, we were trying to find the closest possible interpretation of the original synchronization, which is again fiction. It is a research process that brings you to a result which is, one has to admit, not quite like at that time. However, given the current state of our knowledge, this is the most faithful synchronization of image and sound.

During post-production, we were trying not to change the sound too much, not to clean it or use any noise reduction techniques which are quite popular in the

commercial sector as they reduce the analogue noises, making viewers feel like they are watching a newer film. We, on the other hand, were trying to interfere with the material as little as possible. At the same time, we knew that considering the different nature of the different elements, we had to try and harmonize the resulting sound track, which was just as difficult as with the image. One of the things the viewers might notice is the fact that the elements often have a different noise level and pitch. This means that if you move from minute 5 to minute 20, you will notice a clear sound difference. And again, we were looking for a compromise to find a level of equalization making the different elements match at least to some extent. At the same time, one can still notice the differences as we want to make it obvious that the restored version, which is as close to the original as possible, is made of different materials.

In the end, also thanks to the fact that the international distribution copies had slightly different synchronization compared to the Czech one, we managed to find parts of sounds we had considered lost. For instance, in one scene towards the end of the film, there is a dead spot in the Czech version where there is no sound. Gradually comparing the copies, we found out that in the Danish version, the original Czech sound has been preserved. Or in this way, we for example found a complete audio caption which is edited into a segment lasting about 5 seconds in the Czech version. What we don't know yet is the synchronization of this audio caption with the beginning of the film as the original image caption has not been preserved.

So, the restored version maintains the 1:1.19 frame format and I assume that the sound will be transmitted in mono.

JK: Yes, surround sound only became common in the cinema several decades later. But the thing is that we were also trying to maintain one of the most important features of the Tobis-Klang sound system, i.e. the frequency spectre of the film. The technology of the time didn't allow for very deep or very high tones. So, we were trying for the film sound to match these conditions. If viewers listened to one of the scans, they might be surprised. In some scenes, for instance, you can clearly hear double basses, but we know that the loudspeakers of the time couldn't play them this well. So, in the restored version, the sound is a bit limited.

A film restored in such a complex way, made of different materials, makes us think about a potentially different perception by the viewers. Used to a smooth flow of audiovisual information, viewers are suddenly confronted with visible seams between individual shots. Can't this experience encourage a more reflective way of viewing the film?

JP: I think that to an extent, it's really up to the viewers to complete the restoration, making their own interpretation of what they see and hear. We were trying to come as close as possible to the original version based on the preserved materials and knowledge about the film. We couldn't come back to the entirely original version. However, this restored version now enters into a „dialogue“ with the viewers. When I personally watch a restored film, I can see the traces of the original work in it, and I create my own idea of what the film could be like at the time it was made. That's why in restoration, one has to bear in mind that the viewers will do part of the job.

Do you think that restoration is an open process? That if some new information comes to light, one could „touch“ the restored version again?

JP: *Ecstasy* definitely is an open thing. If a new material appears, it has to be taken into account. At the same time, all steps of the restoration process are carefully archived. Digital scans of different film versions are carefully stored and secured. In the future, a new material might appear and the restored film version can be changed. And this is one of the basic principles of restoration as well: it is a permanent and yet reversible process. New discoveries might help the film remain in play.

JK: We already know that the new première is not the end of the story for us as thanks to the restoration, we have quite extensive knowledge about a number of materials not only from the Czech Republic, but from different European archives as well, which we can continue to review. At the same time, we think that other partner institutions might have certain interesting materials opening the restoration process again. So the „exciting life“ of *Ecstasy* is certainly not over.

JP: And we might find the Holy Grail one day – the original Czech copy from the 1930s.